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Activity 4 – Structure Testing Practice Questions

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The Vehicle Rental Company

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Task Scenario

- You have been asked to create a database for the East Berkshire Vehicle Rental Company
- Currently all records are stored on a spreadsheet
- The Company would like to be able to store information about their Rentals, Customers and Vehicles.
- The Company would like to be able to report on how their cars are Hired.

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Task Scenario

The database will record information about:

Customers and Customer Types.

Vehicles.

Rental Data.

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Task Scenario

- Cars can be Petrol, Hybrid or Electric.
- The company wants the flexibility to add new cars and customers at a later date.
- Customers can on a Platinum, Gold or Standard discount model.
- Each discount allows a different percent discount.
- If a vehicle rental does not have a return date, that means the customer still has the vehicle out for hire.
- Hire costs are for each full day of hire.

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The Data

Vehicle ID	Vehicle Type	Vehicle Make	Hire Cost	Customer ID	Customer Name	Customer Postcode	Discount ID	Discount Type	Discount	Date Hired	Date Returned
1	Petrol	Ford	£75	1	Smith	RG47BP	1	Platinum	25%	20/09/2020	24/09/2020

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Testing

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How To Carry Out Testing

- In order to test if your database works, you will need some test data.
- You could use data that you know will work.
- You may need to use data that is deliberately wrong.
- This is to make sure that your database rejects any data that is incorrect.
- This is your test data.
- You are testing your database to make sure it works with **GOOD** and **BAD** data.

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How To Carry Out Testing

For example, if you have a column that expects a word **NO BIGGER** than 8 letters.

You need to test it with a 6-letter word, and this should be **FINE.**

You need to test it with a 10-letter word, and this should make your database show an **ERROR MESSAGE.**

If you do not see an error message, then you have not configured your database properly.

You would need to check with both pieces of data to make sure your database is working.

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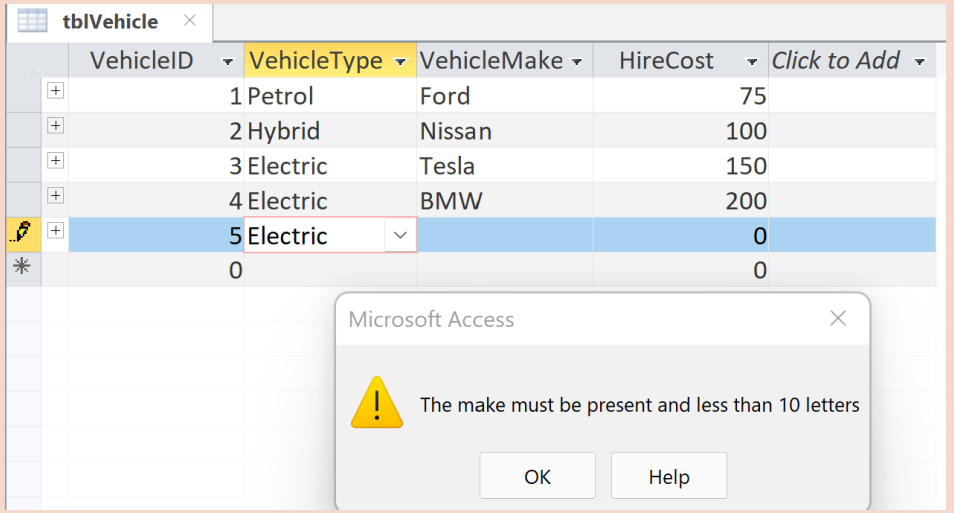
Test 4 - A Vehicle record will not save if the Make is missing

Test No.	Type of Test (N,R,X)	Test Data	Expected results	Add screenprint(s) of the results of this test (and any retests) Ensure you show the test data used in the screenprint(s)	Only complete this column if the results are not as expected
4	R	A Vehicle Make is not supplied	An error message will be displayed		

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Glossary of Terms

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Glossary – Relational Database 1

Key Term	Definition
Attribute	Another name for a Column (or Field) in a Table in a Database.
Cardinality	A measure of how unique values within a column are. A Primary Key column would have High Cardinality, an ‘IsStudent’ column would have Low Cardinality.
Domain	
Entity	
Relation	
Relational Database	
Tuple	

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